

Application No.: 10/039,025  
Attorney Docket No: 24991A US

### REMARKS

Claims 1 and 12 have been amended to clarify that the audio speaker radiator element is formed of the first region of the multilayer substrate as discussed with the Examiner in the Examiner Interview held on November 3, 2003. Claims 2, 4, 10, 14, 16, and 21 have been amended to place the claims in proper Markush format. Claim 25 has been amended to correct the antecedent basis in the preamble of the claim. Applicant respectfully submits that these amendments are proper despite the finality of the outstanding Office Action because the amendments place the application in condition for allowance and/or place the application in better form for appeal. No question of new matter arises and entry of the amendments is respectfully requested.

Claims 1 - 25 are before the Examiner for consideration.

### Examiner Interview

Applicant wishes to thank the Examiner for the helpful and courteous interview conducted on November 3, 2003. Applicant believes that this interview helped to advance the prosecution of this case. Although the "Interview Summary" accurately memorialized the general discussion, a more detailed description is set forth below.

During the interview, Applicant's representative discussed the Shimizu *et al.* and Marcovecchio *et al.* references cited by the Examiner in the outstanding Office Action in view of Applicant's invention. In addition, Applicant's representative suggested amending claim 1 to replace the word "defining" with "forming" and amending claim 12 to replace the word "defines" with "forms" to clarify the audio speaker radiator element as being formed by the multilayer substrate. The Examiner indicated that such amendments would likely overcome the cited art references.

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**Rejection under 35 U.S.C. §102(b)**

Claims 1 and 11 – 13 have been rejected under 35 U.S.C. §102(b) as being anticipated by Shimizu *et al.* (U.S. Patent No. 4,267,993). In particular, the Examiner asserts that Shimizu *et al.* disclose a vehicle trim panel/radiator element integral unit that includes a multilayer substrate having a core and an outer layer formed to have a first region compressed to a first thickness defining an audio speaker radiator element and a second region having a second thickness that is greater than the first thickness. In addition, the Examiner asserts that Shimizu *et al.* teach that the multi-layer substrate is attached to a first substrate that has at least one rib and one opening adjacent to the rib.

In response to this rejection, Applicant respectfully directs the Examiner's attention to the amendments made to independent claims 1 and 12 which were discussed in the Examiner Interview held on November 3, 2003, and respectfully submits that Shimizu *et al.* do not teach or suggest the claims as amended. With respect to independent claim 1, Applicant submits that Shimizu *et al.* do not teach a vehicle trim panel/radiator element integral unit that includes a multilayer substrate having a first region forming an audio speaker radiator element as presently claimed. With respect to independent claim 12, Applicant submits that Shimizu *et al.* do not teach a vehicle trim radiator element combination in which a multilayer substrate forms an audio speaker radiator element as currently claimed.

Shimizu *et al.* disclose an instrument panel (or a door panel) that contains a mounted speaker supporter section which receives and holds a separate speaker unit. (See Abstract and column 2, lines 41 – 64). Because there is no teaching within Shimizu *et al.* of a multilayer substrate that has first region forming an audio speaker radiator element as presently claimed in claim 1 or a vehicle trim radiator element combination in which a multilayer substrate forms an audio speaker radiator element as claimed in claim 12, Shimizu *et al.* cannot be an anticipatory reference. Accordingly, Applicant respectfully submits that

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amended independent claims 1 and 12, and all claims dependent therefrom, are patentably distinguishable over Shimizu *et al.*

In view of the above, Applicant submits that claims 1 and 11 – 13 are not anticipated by, or obvious over, Shimizu *et al.* and respectfully requests that the Examiner reconsider and withdraw this rejection.

**Rejection under 35 U.S.C. §102(b)**

Claims 1 – 6 and 8 – 21 have been rejected under 35 U.S.C. §102(b) as being anticipated by Marcovecchio *et al.* (U.S. Patent No. 6,447,047). In particular, the Examiner asserts that Marcovecchio *et al.* disclose a vehicle trim panel/radiator element which includes a multilayer substrate formed into a first compressed region defining an audio speaker radiator element and a second region that is integral to the first compressed region. In addition, the Examiner asserts that Marcovecchio *et al.* disclose that the substrate includes a core layer and two outer layers on opposing sides of the core layer. It is asserted that the core layer may be a polymeric foam layer or a polymeric fiber non-woven mat. Further, the Examiner asserts that the multilayer substrate is attached to a first substrate having at least one rib and at least one opening adjacent to the rib.

In response to this rejection, Applicant respectfully directs the Examiner's attention to the amendments made to independent claims 1 and 12 and respectfully submits that these amendments patentably distinguish claims 1 and 12 from Marcovecchio *et al.* Marcovecchio *et al.* teach a vehicle door covering and structure that has an outer wall, an inner wall that contains at least one opening, a panel formed of two layers, and a frame. (See generally column 3, line 54 – column 4, line 29 and Figure 1). In addition, the panel has a receptacle for receiving a separate loudspeaker. (See column 5, lines 19 – 30). As amended, independent claim 1 defines a vehicle trim panel/radiator element integral unit that includes a

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multilayer substrate having a first region forming an audio speaker radiator element and independent claim 12 defines a vehicle trim radiator element combination in which a multilayer substrate forms an audio speaker radiator element. As discussed in the Examiner Interview held on November 3, 2003, such features are not taught or suggested within Marcovecchio *et al.* Thus, independent claims 1 and 12, and all claims dependent therefrom, are non-anticipatory and patentable.

In view of the above, Applicant submits that the present invention is not anticipated by, or obvious over, Marcovecchio *et al.* and respectfully requests that this rejection be reconsidered and withdrawn.

**Rejection under 35 U.S.C. §103(a)**

Claims 2 - 11 and 13 - 23 have been rejected under 35 U.S.C. §103(a) as being obvious over Shimizu *et al.* (U.S. Patent No. 4,267,993) in view of Marcovecchio *et al.* (U.S. Patent No. 6,447,047). The Examiner admits that Shimizu *et al.* do not teach what materials are used for the core or the outer layer of the multilayer substrate. The Examiner cites Marcovecchio *et al.* as teaching a multilayer structure that uses polymeric core materials and outer layers. Thus, the Examiner concludes that it would have been obvious to one of ordinary skill in the art that the materials used in Marcovecchio *et al.* could be used in the integral unit disclosed in Shimizu *et al.*

Applicant respectfully traverses this rejection in view of the following remarks.

Applicant respectfully directs the Examiner's attention to the amendments to independent claims 1 and 12 and respectfully submits that claims 1 and 12, as amended, define inventions that are not taught or suggested within Shimizu *et al.* or Marcovecchio *et al.* As amended, independent claim 1 defines a vehicle trim panel/radiator element integral unit that includes a multilayer substrate having a first region forming an audio speaker

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radiator element. Independent claim 12, as amended, defines a vehicle trim radiator element combination in which a multilayer substrate forms an audio speaker radiator element.

Applicant respectfully submits that none of the cited references teach or suggest the vehicle trim panel/radiator element integral unit as set forth in amended claim 1 or the vehicle trim panel/radiator element combination as set forth in amended claim 12. In particular, there is no teaching or suggestion of a multilayer substrate that has first region forming an audio speaker radiator element as presently claimed in claim 1 or a vehicle trim radiator element combination in which a multilayer substrate forms an audio speaker radiator element as claimed in claim 12. Accordingly, Applicant submits that the inventions of independent claims 1 and 12 are not taught or suggested within the Examiner's cited references, either alone or in combination. Further, Applicant submits that the combination of the cited references would not result in the presently claimed invention.

Because claims 2 - 11 and 13 - 23 are dependent upon claims 1 and 12 respectively, which, as discussed above, are neither taught nor suggested by Shimizu *et al.* and/or Marcovecchio *et al.*, claims 2 - 11 and 13 - 23 are also non-anticipatory, non-obvious, and patentable.

In view of the above, Applicant submits that the present invention is not anticipated by, or obvious over, Shimizu *et al.* in view of Marcovecchio *et al.* and respectfully requests that this rejection be reconsidered and withdrawn.

**Rejection under 35 U.S.C. §103(a)**

Claims 7 and 22 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Marcovecchio *et al.* (U.S. Patent No. 6,447,047). The Examiner admits that Marcovecchio *et al.* do not disclose the size of the first or second thickness of the substrate. However, the Examiner asserts that is it within the purview of one of ordinary skill in the art

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to vary the thicknesses of the first and second layers depending on the size of the speakers to be installed and the dimensions of the door panel itself.

In response to this rejection, Applicant respectfully directs the Examiner's attention to the amendments made to independent claims 1 and 12 as discussed in the Examiner Interview held on November 3, 2003 and submits that these amendments patentably distinguish claims 1 and 12 from the cited reference. As discussed previously, Marcovecchio *et al.* do not teach or suggest a multilayer substrate that has first region forming an audio speaker radiator element as claimed in amended claim 1 or a vehicle trim radiator element combination in which a multilayer substrate forms an audio speaker radiator element as presently claimed in claim 12. As such, claims 1 and 12 cannot be anticipated by, or obvious over, Marcovecchio *et al.* Because claims 7 and 22 are dependent upon claims 1 and 12 respectively, which, as discussed above, are neither taught nor suggested by Marcovecchio *et al.*, claims 7 and 22 are also non-anticipatory, non-obvious, and patentable.

In view of the above, Applicant submits that claims 7 and 22 are not obvious over Marcovecchio *et al.* and respectfully requests that the Examiner reconsider and withdraw this rejection.

**Rejection under 35 U.S.C. §103(a)**

Claims 24 and 25 have been rejected under 35 U.S.C. §103(a) as being obvious over Marcovecchio *et al.* (U.S. Patent No. 6,447,047) in view of Heron (U.S. Patent No. 6,247,551). The Examiner admits that Marcovecchio *et al.* do not teach an electro-mechanical device coupled to the audio speaker radiator element. The Examiner asserts that Heron teaches that loudspeakers attached to electromechanical drive devices are conventional in the art. Thus, the Examiner concludes that it would have been obvious to one of ordinary

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skill in the art that any known loudspeaker arrangement could have been used in the integral unit of Marcovecchio *et al.*

Applicant respectfully traverses this rejection in view of the following remarks.

Applicant respectfully directs the Examiner's attention to the amendments to independent claims 1 and 12 and respectfully submits that claims 1 and 12, as amended, define inventions that are not taught or suggested within Marcovecchio *et al.* As discussed above, Marcovecchio *et al.* do not teach or suggest a multilayer substrate that has first region forming an audio speaker radiator element as claimed in amended claim 1. In addition, Marcovecchio *et al.* do not teach or suggest a vehicle trim radiator element combination in which a multilayer substrate forms an audio speaker radiator element as presently claimed in claim 12. As a result, claims 1 and 12 cannot be anticipated by, or obvious over, Marcovecchio *et al.* Furthermore, Heron adds nothing to the teachings of Marcovecchio *et al.* to meet the features of the invention as set forth in amended claims 1 and 12. Because claims 24 and 25 are dependent on claims 1 and 12 respectively, which are neither taught nor suggested by Marcovecchio *et al.*, and because Heron does not make up for the deficiencies of Marcovecchio *et al.*, Applicant submits that the combination of the Examiner's cited references neither teaches nor suggests the presently claimed invention. Thus, claims 24 and 25 are not obvious over the combination of Marcovecchio *et al.* and Heron.

In view of the above, Applicant submits that the present invention is not obvious over Marcovecchio *et al.* in view of Heron *et al.* and respectfully requests that this rejection be reconsidered and withdrawn.

## CONCLUSION

In light of the above, Applicant believes that this application is now in condition for allowance and therefore requests favorable consideration.

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If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

If necessary, the Commissioner is hereby authorized to charge payment or credit any overpayment to Deposit Account No. 50-0568 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

Date:

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